

THE BEALL TOOL CO.



CATALOG

The Beall Tool Company

The Beall Tool Company was founded in 1982 to market the Beall Wood Threader, a router fixture for making threads on wooden dowels. The Threader had worked well for us, we reasoned – perhaps it would be useful to other woodworkers, as well, allowing us in the bargain to supplement the income from our woodworking business. We couldn't imagine then, that many people would be interested in such an arcane process as wood threading, and expected the market to be saturated within a couple of years. Now, nearly twenty-five years, one book and thousands of kits later, the Beall Wood Threader is still going strong, joined in our catalog by such project-inspired products as the Beall Wood Buff, the Hinge Wizard and the Inclinator. We're truly thankful for all of the great customers who have gotten us this far and are determined to give them (and you) the best and most personal service possible. Individually, we are:

J.R.- Founder, production manager and resident inventor, J.R. is the sort of guy who'd ordinarily be depicted with light bulbs hovering over his pate. He is a wizard of woodworking and mechanics who loves variety, having at various times in his career applied his skills to musical instruments, clocks, furniture, boats, turnings, humidors, kaleidoscopes and wooden mechanisms. From the difficulties he encounters in these projects have come inspirations for most of the products on these pages. He pretends to be a grouch, but in reality thinks he is a pretty lucky guy, since so much of his work is play. . .

Judith- Inspires J.R. (hopefully) and occasionally restrains him. She has, in the process of doing the books, dealing with advertising, writing the copy and taking the catalog and web photos, learned more than she ever thought possible about woodworking and mechanics, accounting principles, computers and light – though she still has a lot to learn. . .

Jackie- Although we all take phone orders from time to time, the pleasant and helpful voice you are most likely to hear when you dial us belongs to Jackie. She is a one woman ordering, assembly and shipping department who does her very best to make sure that you get what you want when you want it. She also pleads with and prods whomever necessary to ensure that we have plenty of stock, and generally keeps things running smoothly. We could not get along without Jackie and suspect that many of our customers call back just to hear her friendly voice. . .

Les is our newest employee, but one of our oldest friends. Musician and graphic artist extraordinaire, he goes about all his tasks – whether ad and catalog design and layout, product assembly, forklift handling or grass mowing with a calm mindfulness that reassures us all and makes us wonder why we did not hire him a long time ago. (You have him to thank for our snazzy new catalog design.)

Christy- Designed our first web site when she was a ninth grader and continues to upgrade and maintain it for us, even though she is now a college graduate and full-blown web designer living in the Netherlands. She is currently redesigning our site to reflect her more mature talents so watch out for the new “look” at www.bealltool.com. You can see more of her work at her own address – www.christybeall.com.

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THE BEALL Wood Buff

Wood buffing has been used by pipemakers to polish their briars for years. We first became intrigued by the process when we saw the impressive results it produced in our own shop, and soon afterwards decided to offer the necessary components in our catalog. Wood buffing wheels are similar to the metal buffing versions, but softer and looser, to conform to the contours of the work without blurring the detail. Since the buffing process adds nothing to the surface of the wood except a thin coat of carnauba wax – a non-toxic edible substance – wood buffing is a particularly good choice for toys or pieces which are intended to contain food items.

THE WOOD BUFF KIT

Since its introduction, the Wood Buff has gained a multitude of admirers - especially among turning enthusiasts. Its ease of use, coupled with the sheen it produces, makes it a particularly elegant solution to many finishing dilemmas. The Wood Buff may be attached to a 1725 r.p.m. stationary motor, a wood lathe or a multi-use shop tool. And, although it was designed to polish smaller items, it can be adapted to larger surfaces such as tabletops by powering it with a variable speed sander/polisher unit of the type used for auto refinishing. The Wood Buff Kit includes a Combination $\frac{1}{2}$ " - $\frac{5}{8}$ " Adaptor, one end of which attaches to your motor shaft where it is held in place by set screws. The other end is internally threaded to accept the bolts installed in the center of each buffing wheel, enabling you to change wheels quickly during the buffing process.

THE WOOD BUFF KIT...

consists of three 8" buffing wheels with center bolts for quick change, a combination $\frac{1}{2}$ " - $\frac{5}{8}$ " adaptor, two buffing compounds, one bar of carnauba wax and complete instructions \$69.95



8" Tripoli Wheel (each)	16.25
8" White Diamond Wheel (each)	15.75
8" Wax Wheel (each)	15.50
4" Wheel Kit	49.95
4" Tripoli Wheel (each)	7.75
4" White Diamond Wheel (each)	7.50
4" Wax Wheel (each)	7.25
Set of Three 4" Wheels	19.25
Combination $\frac{1}{2}$ " - $\frac{5}{8}$ " Adaptor (with right-hand threads only)	15.25
Tripoli Bar (each)	4.50
White Diamond Bar (each)	4.95
Carnauba Wax Bar (each)	5.50

3-ON LATHE MANDREL



Finally — a device that allows you to run three buffs simultaneously. On one end of the 18" mandrel is machined a #2 Morse Taper to fit in the head stock of your lathe; on the other a center to accept the tail stock. The shaft is 3/4" in diameter with buff spacing 4" apart. The Mandrel lets you quickly and easily run small items through the complete wood buffing process without the distraction of changing wheels between steps. It may be purchased separately or in a kit with buffs, compounds and wax included. The 3-On is perfect for buffing small items, such as pens.

Important: the buffs used with this mandrel are the same as those used with the Baldor Buffing Machine with 3/4" holes through their centers. The buffs included with the standard kit will not work on the 3-On.

WB 3-On (Mandrel with #2 Morse Taper only)	\$39.00
WB 3-On/B (Mandrel, three buffs, two compounds & wax)	89.00
(For replacement buffs, see the Baldor Buffing Wheels on page 4)	

The purpose of Bowl Buffs and other similarly shaped products is the same – to buff concave surfaces thoroughly and safely. Unlike those “others” however, which are available only in a firm, all linen configuration designed for metal buffing, these are softies. Assembled from fewer plies of material, they are more pliable, which makes them better able to conform to wood contours. And (except for the 2" version, which is made of all cotton flannel) they are offered in three materials, each designed specifically for buffing either with tripoli compound (all linen,) white diamond polish (combined linen and cotton plies) or carnauba wax (soft all cotton flannel.)

BOWL BUFFS



These buffs don't require a tapered mandrel: they can be mounted, utilizing the Wood Buff Combination Adaptor on a stationary motor, or, with the addition of a Morse taper adaptor, on a lathe. Consider running them at a higher speed than the 8" wheels. In 2", 3" and 4" diameters.

BWLKIT2 (2" Bowl Buff Kit - all three 2" buffs)	\$34.00
BWLKIT3 (3" Bowl Buff Kit - all three 3" buffs)	34.00
BWLKIT4 (4" Bowl Buff Kit - all three 4" buffs)	39.00
BWLTRIP2 or 3 (2" or 3" Tripoli Bowl Buff - each, please specify)	12.25
BWLWD2 or 3 (2" or 3" White Diamond Bowl Buff - each, please specify)	12.25
BWLWX2 or 3 (2" or 3" Wax Bowl Buff - each, please specify)	12.25
BWLTRP4, BWLWD4 or BWLWX4 (4" Bowl Buffs - each, please specify)	14.50



HORSE HAIR WHEEL

For many years – before developing our present buffing system – we rubbed our turned wooden clocks with paste wax and buffed them with a horse hair wheel. This method produced an attractive sheen on the wood, though not the high polish obtainable with the Beall Wood Buffing System. We've decided to offer this 6" Horse Hair Wheel to those of you who prefer a softer shine or are fashioning particularly delicate work that you'd rather not submit to the buffing process. It is ideal for polishing paste wax and for accessing the nooks and crannies of more complicated carvings. Has a $\frac{3}{4}$ " hole and comes assembled with insert and $\frac{3}{8}$ " bolt so that it can be used with the Wood Buff Combination Adaptor.

Horse Hair Wheel \$22.95



STRING BUFF

A recent find, this 7" buffing wheel employs (instead of multiple cloth discs,) hundreds of cotton strings fixed in a wooden hub. It is just a little gentler than our standard buffs and less likely to produce ravelings and lint. It has a $\frac{3}{4}$ " hole for mounting on the Baldor™ or other buffing machine, but we also include an insert and $\frac{3}{8}$ " bolt so that you can use it with the Wood Buff Combination Adaptor.

String Buff \$29.95



BUFFING MANDREL EXTENSION

A sturdy extension to our standard $3\frac{3}{4}$ " Combination Adaptor. Screws into the end of the Adaptor adding 3 inches for an overall reach of $6\frac{3}{4}$ ". Provides a strong and steady holder for the Bowl Buffs or for the 4" or 8" Buffing Wheels.

Buffing Mandrel Extension \$15.50



MORSE TAPER LATHE ADAPTORS

If you prefer to do your buffing on the lathe, and your lathe takes a #1 or #2 Morse taper, these attachments will allow you to mount your buffs securely and still utilize the quick-change feature of the Combination $\frac{1}{2}$ "- $\frac{5}{8}$ " Adaptor. The tapered end is threaded internally to accept $\frac{1}{4}$ "-20 all-thread so that it can be locked into your lathe's headstock. The other end is a $\frac{5}{8}$ " diameter rod machined with a flat to accommodate the set screws in the Combination Adaptor.

#1 Morse Taper \$8.95
#2 Morse Taper 8.95

THE BALDOR™ BUFFING MACHINE

Whether you are a professional or a dedicated amateur wood worker, you will appreciate the smooth, balanced operation of the Baldor Buffing Machine. The quiet, industrial quality $\frac{3}{4}$ hp. 1800 r.p.m. motor is totally enclosed, complete with switch and 8' cord, ready to plug in and use. This is a great opportunity to obtain a tool that will be one of the workhorses of your shop for many years to come. The Baldor Buffing Machine will be shipped to you directly from the manufacturer; the wheels and compounds will arrive separately. (To adapt the $\frac{3}{4}$ " hole Baldor wheels to motors with $\frac{5}{8}$ " shafts, you will need to purchase a set of Wheel Bushings, see below).

*Please note — the buffing wheels we offer for the Baldor machine are similar to our other wheels, but they are drilled to accept the $\frac{3}{4}$ " Baldor shaft and are not fitted with quick-change adaptor bolts. Also, the Baldor Buffing Kit does not contain the Combination $\frac{1}{2}$ " - $\frac{5}{8}$ " Adaptor.



The Baldor Buffing Machine	\$425.00
The Baldor Buffing System (Baldor, three 8" wheels, two compounds and wax)	475.00
Wood Buff Kit for Baldor (Three 8" wheels drilled with $\frac{3}{4}$ " holes, compounds & wax)	53.00
Baldor 8" Tripoli Wheel	15.25
Baldor 8" White Diamond Wheel	14.75
Baldor 8" Wax Wheel	14.50
Buff Wheel Bushings (3 set of 4 different bushings, $\frac{1}{2}$ " - $\frac{3}{4}$ ")	4.95

Wood Buffing Needs

If you want to buff with an ordinary single shaft motor, you will need:

- A motor — It should be at least $\frac{1}{2}$ h.p. & run between 1725 and 1800 r.p.m.* & may be salvaged from a washing machine or other appliance **Plus**
- Either The Beall Wood Buff Kit (three 8" wheels, Tripoli & White Diamond compounds, Carnauba Wax Bar & Combination $\frac{1}{2}$ " - $\frac{5}{8}$ " Adaptor) or one of the Beall Bowl Buff Sets plus a Combination Adaptor, two compounds & wax bar (The Bowl Buffs will work better at a higher r.p.m. See note*)

If you want to buff with your lathe, you will need:

- Either the Beall Wood Buff Kit (three 8" wheels, Tripoli & White Diamond compounds, Carnauba Wax Bar & Combination $\frac{1}{2}$ " - $\frac{5}{8}$ " Adaptor). **Or**
- One of the Beall Bowl Buff Sets plus a Combination Adaptor, two compounds & wax. **Plus**
- Morse Taper (either #1 or #2) to mount the Combination Adaptor on your lathe and a piece of $\frac{1}{4}$ " - 20 all-thread to lock the Morse Taper into your lathe's headstock **Or**

- The Beall 3-On Lathe Mandrel with buffs, compounds & wax (machined with a Morse Taper #2 on one end)

If you want to buff with a buffer/grinder motor, you will need:

- The Baldor Complete Buffing System (Baldor Buffing Machine, three 8" wheels with $\frac{3}{4}$ " mounting holes, Tripoli & White Diamond compounds & Carnauba Wax Bar) **Or**
- Other buffer/grinder motor that runs between 1725 and 1800 r.p.m.* **Plus**
- The $\frac{3}{4}$ " Hole Wood Buff Kit for the Baldor Buffing Machine (three 8" wheels with $\frac{3}{4}$ " mounting holes & one each Tripoli, White Diamond & Carnauba Wax bars)

If you want to buff furniture or other large pieces that cannot be easily held up to a buffing wheel, you will need:

- A portable, variable speed sander/polisher motor (often available at auto re-finishing stores) **Plus**
- The Beall Wood Buff Kit **Plus**
- Custom Adaptor (available as a special order)

*The motor r.p.m. should be between 1725 and 1800 r.p.m. when buffing with the large 8" wheels. When buffing with the smaller 4" wheels or any of the bowl buffs, a faster r.p.m. (3000) should be used to compensate for the slower surface speed produced by these smaller diameter buffs

Wood Buffing

The buffing process is a simple one and consists of the following steps:

- 1.** Sand your part to at least 250 grit. If the piece will not receive much handling or is an exotic containing sufficient natural oil, you can proceed immediately to the next step. For more durable results, apply an oil or varnish sealer first, allowing the piece to dry thoroughly. Penetrating finishes such as Min-Wax Antique Oil™, tung oil or Watco™ will produce the best results. However, varnish, and with care, lacquer may also be used. (Not recommended are vegetable-based oils like linseed which may not dry thoroughly, or shellac, which can be melted by the heat produced in the buffing process.)
- 2.** Apply the Tripoli bar included in the kit to the all linen Tripoli Wheel and buff: all buffing wheels are marked for your convenience. Tripoli is the coarsest abrasive included in the kit and will leave a slight residue on the work.
- 3.** Next, buff your piece with White Diamond compound applied to the combination linen and cotton White Diamond Wheel. White Diamond is a finer, drier compound and will remove the residue left from Step 2.
- 4.** Finally, apply Carnauba Wax with the all- cotton flannel Wax Wheel. The beauty of the resultant finish is difficult to describe: it is similar to the effect achieved with multiple coats of lacquer, but is softer and deeper. Since only the Carnauba Wax, an edible natural substance, remains on the wood, buffing is particularly appropriate for small hand held objects — bowls, pens, boxes and toys.

Warning: Be sure to wear an OSHA approved dust mask when you buff. Particles in buffing compounds can irritate eyes, nose and skin. Excessive inhalation of Tripoli particles can lead to serious lung disorders.

Lathe Accessories

THE BEALL TOOL COMPANY

1 1/4" TREEN & LID MANDRELS

These mandrels allow you to turn small lidded bottles and vases with minimum effort and maximum precision. The 1 1/4" Bottle Mandrel is sharpened on its business end so that it bites into the inside bottom of a vessel when you apply pressure to it with your lathe's tail stock, an arrangement which holds the work securely — eliminating chatter and allowing you to make the piece quite thin without fear of shattering the wood. The matching Lid Mandrel does not require the use of the tail stock, thus giving you more latitude in turning the lid. Also included with the mandrel set is a Gauge Ring for checking the fit of your lid. Both the mandrels are secured with set screws on a #1 or #2 Morse Taper adaptor.

The system includes, in addition to the Mandrels, fittings for assembling the lid & stopper of the bottle (which are turned separately from each other) and a cork sheet for lining the stopper. You will need one set of fittings for each lid & stopper that you turn.



1 1/4" Treen Mandrel Set	\$32.70
Morse Taper Adaptor #1 or #2	8.95
1 1/4" Treen Mandrel Set + Morse Taper (Specify #1 or #2 Taper.)	39.60
6" x 8" Cork Sheet	2.95
Lid Insert/Stopper Sets	
3 Sets	5.85
6 Sets	11.52
12 Sets	23.05
Treen Starter Kit (Mandrels & Gauge Ring, three Lid Insert/ Stopper Sets, Cork Sheet & instructions.)	40.45
Treen Starter Kit + Taper (Mandrels & Gauge Ring, three Lid Insert/Stopper Sets, Cork Sheet, & instructions plus a #1 or #2 Morse Taper adaptor.)	47.30
1 1/4" Sawtooth Bit (See Page 19.)	7.97

TREEN MANDREL EXPANDERS

T

hese expansion kits for our popular 1-1/4" Treen Mandrel allow you to turn 1-1/2" or 2" ID boxes. The 1-1/2" expander set consists of two brass rings which slide over the original mandrel. The larger expander comprises two 2" diameter steel rings which fit over the mandrel, where they are secured with set screws, and a 2" aluminum gauge ring to permit easy matching of box and lid diameters.

2" Treen Mandrel Expander	\$21.75
1 1/2" Treen Mandrel Expander	\$3.75



TREEN MANDREL CONVERTOR

T

his precision steel Convertor is designed for turners who want to produce treen in wholesale quantities and would prefer to dispense with the aluminum fittings. It attaches to the Treen Lid Mandrel and is essentially an internal expanding collet which fits into a 1/2" hole. Both lid and stopper can be turned on this device, then assembled with a short piece of 1/2" dowel.

Treen Mandrel Convertor	\$15.25
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1" TREEN DRIVER

T

his sharp-edged 1" driver for the smaller lid mandrel is designed to turn hollow lids or stoppers – especially those used for salt and pepper shakers. Designed to be used with the original 1-1/4" Treen Mandrel Set, this new part makes a jamb chuck unnecessary.



1" Treen Driver	\$5.25
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THE BEALL COLLET CHUCK & COLLET SYSTEM

Our collet system, adapted from metal working technology, is designed to hold small parts safely and accurately in a lathe without marring. Its components are a machined steel Collet Chuck (threaded to accept a 1"-8, 1 1/4"-8, 1 1/2"-8, 3/4"-16 or 33mm lathe spindle,) matching Spanner and precision ground Collets in five 1/8" increments: 1/4", 3/8", 1/2", 5/8" and 3/4". Individual collets

have a range of forty thousandths, or about 1/32", and non-stocked ones in both regular and metric sizes can be specially-ordered. The collets hold so securely that wrenches are usually unnecessary, with hand tightening being sufficient for most applications. In addition to holding wood stock for turning, the system is also useful for mounting assorted mandrels, small shop-made face plates, metal turning blanks and small jam chucks.

The Beall 1.0 Collet Chuck	\$79.00
1.0 Collet Chuck Set (with five collets)	159.00
The Beall 1 1/4" Collet Chuck	83.00
1 1/4" Collet Chuck Set (with five collets)	163.00
The Beall 1 1/2" Collet Chuck	83.00
1 1/2" Collet Chuck Set (with five collets)	163.00
33mm Collet Chuck	83.00
33mm Collet Chuck Set (with five collets)	163.00
3/4"-16 Collet Chuck (Specify if for Sherline)	79.00
3/4"-16 Collet Chuck Set (with five collets)	159.00

Extra Spanner for Chuck	\$5.95
Individual Collets (specify 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4")	19.00
Non-stocked Collets (in 1/16" increments)	35.00
Metric Collets	37.00



THE BEALL CHUCK PUCK

This handy little item (we couldn't resist the rhyme) will save you the trouble of turning your square stock down to fit your chuck. Made of sturdy, non-marking black Delrin™, the Chuck Puck is machined in three steps so that it can receive 1/2", 3/4" or 1" square material.

Chuck Puck \$12.00

1/2" MORSE TAPER DRILL CHUCK



Essential for lathe boring, our new discovery is substantial enough to hold most large Forstner and multi-spur bits. This 1/2" keyed chuck fitted with a #2 Morse taper offers exceptional quality for its price. Made in China.

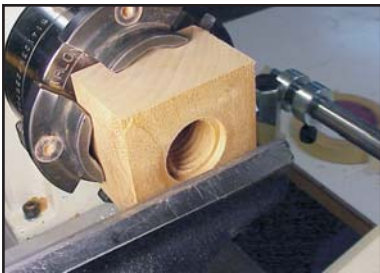
Morse Taper Drill Chuck \$24.95

Lathe Spindle Taps

These taps are machined in lathe spindle sizes so that after you have drilled a wood block, you can tap it and mount it directly on your lathe. The tapped block can then be put to use in a special face plate, jamb chuck, vacuum fixture or other mounting assembly. Offered in four sizes – 1"-8, 1 1/4"-8, 1 1/2"-8 or 33 mm.



1 - 8 Lathe Spindle Tap	\$32.00
1 1/2 - 8 Lathe Spindle Tap	41.00
1 1/4 - 8 Lathe Spindle Tap	38.50
33mm Lathe Spindle Tap	38.50



How to use the... Lathe Spindle Taps

To make a wooden spindle fitting, first bore a hole, 1/8" under the lathe's spindle size. Do not use an end grain block as it will not tap well.

Then lock your spindle and using the tail stock to center the back end of the tap, start it in the hole. Turn the tap with a wrench and, at the same time, advance the tail stock to keep pressure on the tap as it turns into the wood.

After tapping, use a skew to face off the front of the block so that it will seat properly against the spindle shoulder. It will be necessary to turn a slight recess in the front of the block since most spindles are not threaded all the way to the shoulder.

Shown on the left are a multi - size jamb chuck and a blank ready for – whatever. Fixtures of this type are inexpensive and handy and may be used many times. They run very true, as well, since they are turned right on the lathe spindle.



"NOT YOUR RUN OF THE MILL" PEPPER MILL

New on the market, innovative Crush Grind™ pepper mills incorporate durable ceramic burrs, permitting them to grind sea salt and other hard spices, as well as pepper. Crush Grinds are available in two versions: one is the traditional style with the grinder mechanism at the bottom of the mill. It does differ from standard mills by having the coarseness adjustment at the

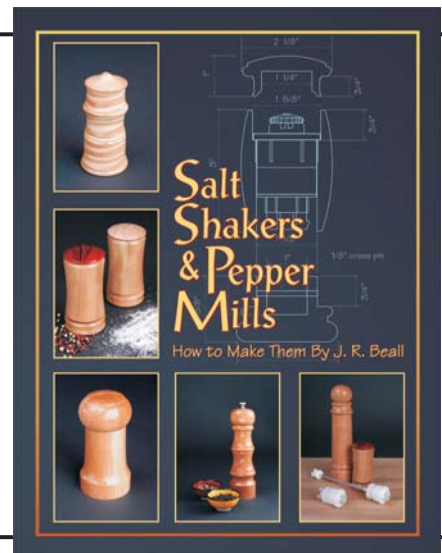
bottom of the assembly eliminating the necessity for a thumb nut on top. Since the upper shaft may be cut to any length, a variety of shapes and configurations are possible with this mill. The second version is shorter, with a shaftless mechanism which may be mounted with its opening facing either up or down. This makes it possible to fashion a "no mess" mill which will save the tablecloth by emitting pepper from its top, rather than bottom. Neither of these mills require mounting screws and can be easily friction fit into wooden containers. Our new instruction booklet, *Salt Shakers and Pepper Mills – How to Make Them*, details several ways these mechanisms can be mounted.

Long Pepper Mill.....	\$14.95
Short Pepper Mill.....	12.50

SALT SHAKERS & PEPPER MILLS AND HOW TO MAKE THEM

Our new illustrated instruction booklet provides a complete description of these mechanisms and details several ways they can be mounted. It contains photos and detailed drawings of designs as well as helpful tips for completing projects.

Salt Shaker & Pepper Mills And How To Make Them..... \$7.95



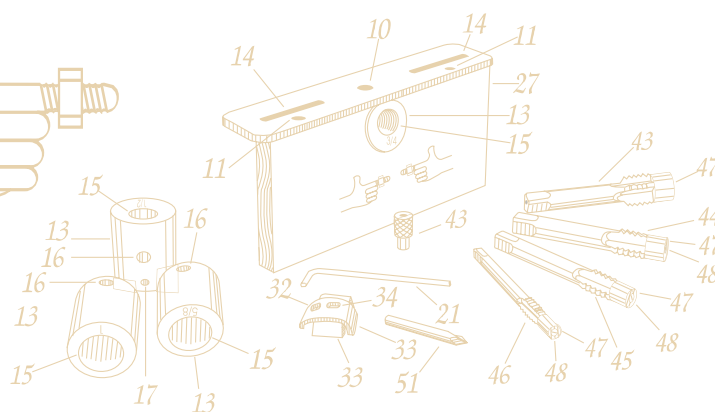
ADHESIVE BACKED CORK

And to simplify the making of snug joints on shakers and mills, we are now offering 3/8" adhesive-backed cork stripping in convenient 5' rolls.

Adhesive Backed Cork \$3.95

THE BEALL Wood Threader

U.S. PAT. 4287627



THE BEALL WOOD THREADER



The Beall Wood Threader works with your router to cut external threads on wooden dowels. Since the bit used for cutting is solid carbide, you can produce thousands of threads without ever having to sharpen it or adjust its angle. You can thread any species of wood (including exotic) without pre-treating, and many plastics, as well. Your router clamps to the hard maple and aluminum table. For fast set-up we include an aluminum centering sleeve. Precision machined Delrin™ Threading Inserts ensure accuracy without marking your wood. Internal threads are produced with Combination Taps designed especially to cut wood easily and cleanly. All taps have removable pilots with the capacity to tap a full thread within $\frac{7}{16}$ " of the bottom of a hole, so that separate bottoming taps are unnecessary. The socket head screw which secures the pilot to the tap body is quickly and easily removed and just as easily reattached with the wrench included in each threader kit. Larger taps have four flutes so that chips will clear easily, minimizing the physical effort required. Taps and inserts are available for the Wood Threader which will cut right-hand threads in four sizes: $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ " and 1".

THREADER KITS & ACCESSORIES

$\frac{1}{2}$ " - 8 Threader Kit	\$76.00
$\frac{5}{8}$ " - 7 Threader Kit	76.00
$\frac{3}{4}$ " - 6 Threader Kit	81.00
1" - 6 Threader Kit	85.00
3-Size Threader Kit ($\frac{1}{2}$ ", $\frac{3}{4}$ " & 1" right)	145.00
4-Size Threader Kit ($\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ " & 1" right)	179.00

All kits contain:

- Table & Hardware Packet
(with installation screws, router hold-downs & centering sleeve)
- Threading Insert(s)
- Tap(s)
- Complete instructions
- Solid Carbide Router Bit
(unless otherwise noted)
- Full-size drawings of a threader crank & tap handle (for kits up to 1")

COMPONENTS

Table & Hardware	\$25.00
Solid Carbide Single End Bit	22.75
Right-Hand Insert (specify $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ " or 1")	11.00
$\frac{1}{2}$ " - 8 Tap	27.00
$\frac{5}{8}$ " - 7 Tap	27.50
$\frac{3}{4}$ " - 6 Tap	32.00
1" - 6 Tap	35.50

THE BIG THREADER



The taps and inserts in this threading kit, 1 ¼" and 1 ½", make possible projects for which smaller threads would be inadequate: bench vises, book presses, candle stands, piano stools and really hefty clamps. The Big Threader works just like our standard version and comes with a solid maple and aluminum table, machined Delrin™ threading inserts and combination (regular/bottoming) taps. The Big Threader is available in one- or two-size kits with an optional Solid Carbide Bit. (You may already have this bit, since it is the same one included in our standard threading kit.) *Please note that the table for the Big Threader is not interchangeable with the one in our smaller threading kits.*

BIG THREADER KITS & ACCESSORIES

1 ¼"-5 Big Kit	\$71.00
(without Carbide Bit)	
1 ¼"-5 Big Kit	91.00
(with Carbide Bit)	
1 ½"-5 Big Kit	76.00
(without Carbide Bit)	
1 ½"-5 Big Kit	97.00
(with Carbide Bit)	
Both Sizes	117.00
(without Carbide Bit)	
Both Sizes	139.00
(with Carbide Bit)	

All kits contain:

- Table & Hardware Packet
(installation screws, router hold-downs & centering sleeve)
- Threading Insert(s)
- Tap(s)
- Complete instructions
- Optional Solid Carbide Bit

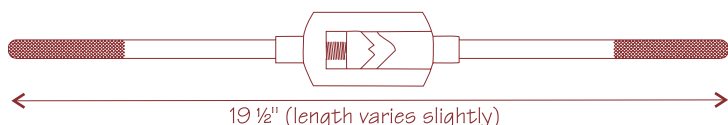
COMPONENTS

Big Table & Hardware	\$25.00
1 ¼"-5 Threading Insert	14.00
1 ½"-5 Threading Insert	14.00
Solid Carbide Single-End Bit	22.75
1 ¼"-5 Combination Tap	39.00
1 ½"-5 Combination Tap	43.00

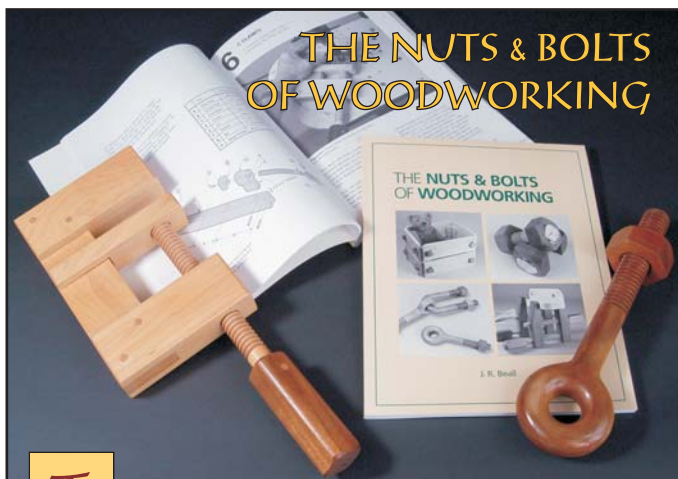
W

STEEL TAP WRENCH

hen you are tapping smaller holes, a double - handled wrench, either commercial or home-built, turns your tap more easily and helps to keep it perpendicular. When you are using large taps - one inch and up - this industrial strength tap wrench is an absolute necessity. You simply won't be able to get the control or torque you need without it. This Steel Tap Wrench will accept all of our taps, from ½" to 1 ½".



Steel Tap Wrench	28.95
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THE NUTS & BOLTS OF WOODWORKING

T

his is "the Book" on wood threading and related projects. *The Nuts & Bolts of Woodworking* by J. R. Beall is a compendium of more than twenty wood threading projects combined with helpful hints and techniques guaranteed to make its readers better wood workers. Moreover, we have heard rumors that it is wonderfully entertaining: one customer claims to have read it at least ten times just for the prose! After being deluged with requests for such a book for years, we have satisfied our customers and managed to break even in the process. What a great life!

The Nuts & Bolts of Woodworking..... \$15.00



HEX NUT FIXTURE

P

roducing hex nuts has always been problematic, requiring a band saw & vertical belt sander to make passably good ones, but now a rank beginner can make perfect ones every time. Inspired by an idea generously supplied by one of our customers, we have come up with this device which produces hexagonal nuts with the aid of a circular saw. A table saw, radial arm or chop saw can be employed in this noble office and the resulting nuts will be perfect hexagons. For Threader sizes up to 1".

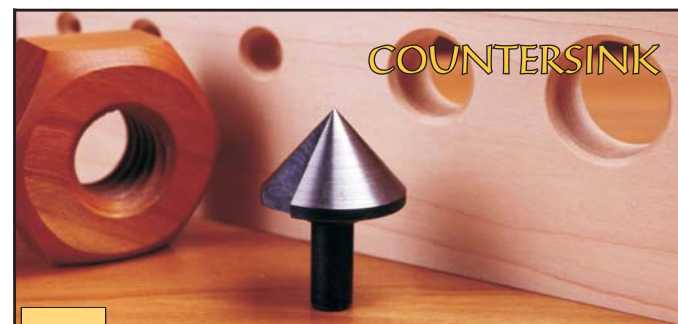
Hex Nut Fixture \$39.00



A

handy guide for laying out an almost infinite number of hex nuts (actually, twelve) including large sized ones for big threading. It is also printed with a list of the drill sizes needed to make pilot holes for tapping so that you won't have to rely on memory — something we find increasingly difficult to do.

Hex Nut Template \$5.95



COUNTERSINK

T

his single-flute Countersink has been one of our steadiest sellers over the years and we have continually improved it — providing it with a better cutting edge, making it chatterfree and spiffing up its general appearance. We now believe it to be the best general purpose wood working countersink on the market, and perhaps deserving of some extra copy extolling its virtues. The Countersink is a natural companion to the Wood Threader — essential for making a neat bevel on a hole drilled for tapping, but also a great basic tool for smoothing rough edges, cutting an 82° chamfer on holes from 0 - 1" or countersinking screw heads of any size. We have it manufactured with a 3/8" shank so that you can use it on either a hand drill or a small drill press.

82° Countersink 19.95

HARDWOOD DOWELS

We have always carried hardwood dowels and they have always been problematic: their higher moisture content makes them highly unstable; they vary in color and grain and sometimes even arrive at their destinations in altered shapes or dimensions. Being a picky bunch, we are then forced to discount the rejects severely or relegate them to the garden for tomato service. The ones that pass muster continue to be popular, however, probably because hardwood dowels are increasingly difficult to find in stores and ours are better priced and truer than those available from other suppliers.

The dowels commonly available at local lumber yards and hardware stores are often from an Indonesian species called *ramin* and are seldom close to specified sizes, whereas the ones offered here are all American hardwood and are checked for accuracy before they leave the shop to ensure that they will thread properly.

All dowels are 36" long.

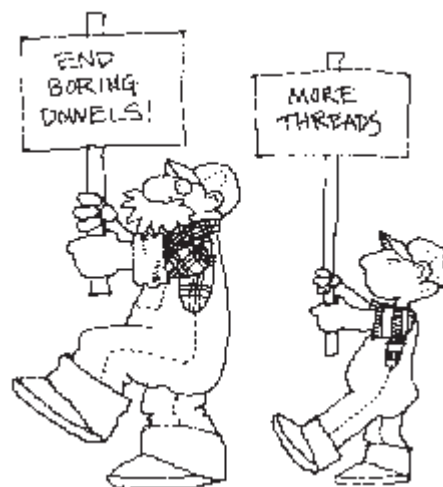
Dowels	3/8"	1/2"	5/8"	3/4"	1"
Maple	1.40	1.65	2.10	3.15	4.30
Oak	1.40	1.65	2.10	3.15	4.30
Cherry	2.15	2.85	3.90	4.50	6.50
Walnut	2.50	3.25	4.30	5.50	7.35
Dowels	1 1/4"		1 1/2"		
Maple	6.10		7.50		

12 Dowel Package (save \$4.15)

One each of 1/2", 3/4" and 1" dowels in each species \$43.00

16 Dowel Package (save \$6.55)

One each of 1/2", 5/8", 3/4" and 1" dowels in each species
53.00



Lumber used for commercial dowels has a 10% moisture content so that it will be easier to machine. This makes it unstable: dowels usually change dimensions seasonally.

B SECOND QUALITY DOWELS

Because our standards are exacting and we demand particularly close tolerances from our dowels, many of them fall short of perfection. These rejected dowels may be over- or under-sized and thus unsuitable for threading; they may be slightly warped or have an "off" color. However, they are perfectly acceptable for general shop use and a variety of craft projects. When they are in stock, we can offer them at a 40% discount from their usual price. Sizes and species vary: Check on availability before you order.

Second Quality Dowels Reduced 40%

Box Making & Hardware

NONPAREIL ROUND HINGES



O

ur own design, these unique hinges with matching removable stops are meant to be installed on the outside of a box. They are formed from heavy extruded brass, polished, then coated with a durable lacquer finish so that they will retain their sheen. We have found that mortising them with the Hinge Wizard (see page 16) is preferable to using a Forstner bit.

(See our website www.bealltool.com for matching NP Quadrant Hinges—only \$9.50 / pair.)

NP Round Hinges (Pair) \$16.00

HUMIDOR PLANS &



CONSTRUCTION TIPS

NONPAREIL HUMIDIFIER



T

he material selected for these humidifier inserts, a urethane polymer, absorbs more than thirty times its weight in water, absorbs it more quickly and is better looking and longer lasting than the florist's foam used in many other units. These inserts are encased in $\frac{3}{4}$ " deep, black anodized aluminum boxes with removable lids so that it will be possible for you take them out for filling and washing, thereby eliminating the mess and drips associated with soaking the entire container. Magnets are included for mounting the humidifier, but we recommend attaching it directly to the humidor with a screw. The Nonpareil Humidifier is a great value for its price. We believe that you will be impressed by its quality and performance.

NP 2 $\frac{1}{4}$ " Humidifier \$12.00

T

hese are complete plans for an 8" x 13" humidor, but you can easily scale them up or down. Included are invaluable hints and techniques for creating your own custom humidor. If you are a first-time humidor builder, they are a definite time-saver.

Humidor Plans \$4.50

The HINGE WIZARD

A fast and accurate mortising fixture for box and quadrant hinges



Inletting hinges can be a time-consuming and often tedious process, requiring careful measurement to achieve precise results. Unusually shaped ones — like quadrant hinges — are particularly difficult to install. With the Hinge Wizard, making these mortises is not only painless, but practically pleasurable! You measure only once: since the fixture indexes from the corner of your box (assuming that the box and lid have the same dimensions) hinges will automatically be in alignment when they are installed. Individual templates are available for the most common types and sizes of hinges, making it possible to quickly mortise an exact fit for even troublesome quadrant hinges.

The Hinge Wizard comes with one template of your choice; others may be purchased as accessories. You will require an accurate router with a $\frac{3}{8}$ " guide bushing and a base large enough so that it cannot drop into the opening in the hinge template. (You may want to consider the Transparent Base Plate/ Template Guide described on the following page for this purpose.) The best results will be produced when the router is fitted with a $\frac{1}{4}$ " spiral down-cut bit.

Hinge Wizard with One Template \$69.00

HINGE WIZARD TEMPLATE SELECTION

These are the most popular templates we offer, but we stock others as well. Be sure to ask if the one you need is not on the list. If we do not stock a template for the hinge you are using, we can, in some cases, design a custom one using your hinge as a guide.

NP Round	Br. 103 Box	FMF Quad.
NP Quad.	Br. 107 Box	2" x $\frac{1}{2}$ " Standard Butt Hinge
Br. 101 Box	Br. 638 Quad.	Blank Template
Br. 102 Box	Br. 680 Quad	

Additional Hinge Wizard Template (each) \$6.00

Custom Template 50.00



$\frac{1}{4}$ " SPIRAL DOWN-CUT BIT

This solid carbide bit will produce the cleanest results when used with your Hinge Wizard.

$\frac{1}{4}$ " Spiral Down-cut Bit \$19.75

$\frac{1}{8}$ " CARBIDE END MILL

Used in your drill press, this is perfect for cleaning out quadrant slots: 3" long, solid micro-grain carbide with two flutes.

$\frac{1}{8}$ " Carbide End Mill1 \$19.00



CORNER CHISEL



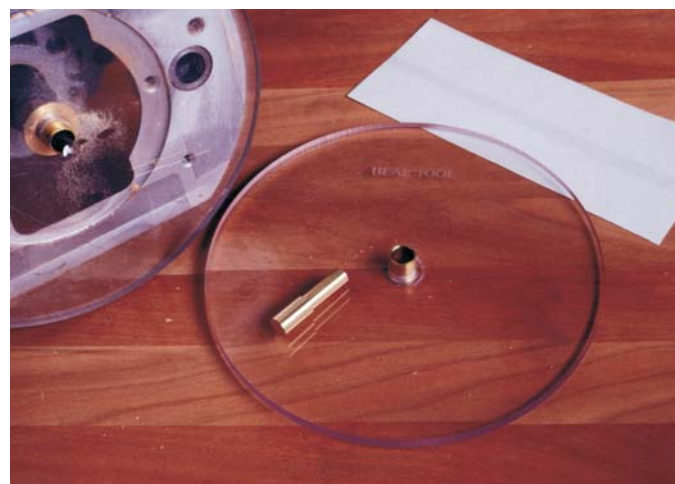
After installing $\frac{5}{16}$ " box hinges in several humidors, our resident inventor decided that the world was ready for a good small corner mortising chisel. The blades of most standard corner chisels are too large for smaller hinge mortises and are guided through grooves in mating rectangular blocks, causing them to produce an unavoidably sloppy cut. We are all proud of this clever and attractive little tool he devised to square up the corners of small butt hinge mortises. Rare-earth magnets hold the wood-handled $\frac{1}{4}$ " blade securely against the wooden guide block, allowing you to cut perfect corners with minimal stress, then to remove the blade and use it alone to clean the bottom of your mortise. We have it ground from high-speed steel which should never require sharpening with normal use; then mortise it into bubinga wood handles we turn and buff in our own shop. This useful little tool has so much character that you may want to give it a personal name — something like "Ace".

1/4" Corner Chisel \$24.75

TRANSPARENT BASE PLATE/TEMPLATE GUIDE

When shop testing the Hinge Wizard, we discovered that the spindle of our professional model router was seriously misaligned with its base, and we suspect that this problem is not an uncommon one. If your router's error is from side to side, you can offset the problem by simply turning it around when you turn the end-stop of your Hinge Wizard over to complete your final two mortises. If not, and you do a lot of template routing, you may want to consider mounting a new, more accurately aligned base plate on the router. We offer this clear, poly-carbonate version with a built-in template guide and centering pin which can be precisely positioned and secured without drilling any holes. It gives you the additional advantage of being able to see where you are routing. Mounts with included double-stick tape, but you can also install it more permanently with screws if you like.

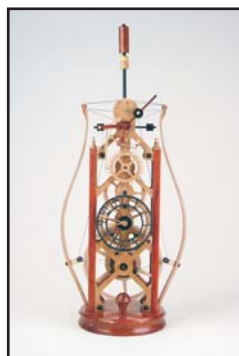
Transparent Base Plate/Template Guide ... \$14.50



EXTRA DOUBLE-STICK TAPE

We use this industrial-strength tape, 3-M's stickiest, to mount our Transparent Base Plate/Template Guide and we know that you will find many other applications for it as well. 3 small rolls, each approximately 36 inches long.

Double-stick Tape Rolls \$1.25



WOODEN WORKS CLOCKS.

JR's latest obsession is building wooden works clocks. To that end he has started a web forum on the subject which can be found at www.bealltool.com/clockforum/. This may be of interest to other rationally challenged wood workers.

Drills & Bits

HIGH SPEED STEEL BRAD POINT BITS



These beautifully finished and accurately sized bits last many times longer than the carbon steel versions. They are an exercise in international cooperation: the high speed steel blanks originate in the U.S. and are precision ground in Canada. We believe that they are some of the finest bits you will see offered anywhere. Bits over 1/2" dia. are 6" long with 3" of fluting.

5/64" \$2.95	7/32" \$4.45	23/64" \$7.90	1/2" \$15.90
3/32" 3.10	15/64" 4.60	3/8" 8.20	9/16" 21.70
7/64" 3.15	1/4" 4.60	25/64" 10.45	5/8" 23.80
1/8" 3.20	13/64" 5.37	13/32" 11.20	11/16" 25.90
9/64" 3.45	9/32" 5.65	27/64" 11.75	3/4" 29.10
5/32" 3.50	19/64" 5.90	7/16" 12.50	13/16" 31.60
11/64" 3.60	5/16" 6.20	29/64" 13.20	7/8" 34.90
3/16" 3.80	21/64" 6.60	15/32" 13.95	15/16" 38.90
13/64" 4.20	11/32" 7.20	31/64" 14.50	1" 45.80

HIGH SPEED STEEL BRAD POINT BIT SETS

W

e've had frequent customer requests for drill bit sets over the years, but, until now, haven't reviewed any we considered worthy of our catalog. The high speed steel brad points contained in these sets cut fast, accurate holes in the hardest wood and more than meet our specifications. The bits are the same as those we offer individually and they are contained in index boxes of equally high quality. Just having a set near your drill press should make you the envy of the neighborhood. Made in North America.



12 Bit Set (5/64" - 1/4")	\$44.50
28 Bit Set (5/64 - 1/2")	174.75

Drilling & Boring

D

rilling and boring are two words with very close, sometimes interchangeable meanings.

I usually think of drilling in relation to smaller holes and boring for large ones. Whatever your semantic preference, the hole making process is critical in nearly every type of wood working. Accurate, high quality hole drilling/boring requires good tools, but the bits themselves, along with a suitable drill press, are not an expensive proposition. For most woodworkers these tools are an early purchase and sometimes one made in haste with little experience. It sometimes happens, therefore, that we struggle along for years using poor bits, not realizing the advantages of a relatively inexpensive upgrade. Having good bits in all sizes has made my work a lot more pleasant. I recommend it to you ~ J.R.



SAW TOOTH BITS

T

hese high quality, agreeably priced high speed steel bits cut faster than Forstners and can be offered in a wider range of sizes than multi-spurs. Made in China. 5" overall-3/8" hexagonal shank

1 1/16"	\$8.39	1 5/16"	\$9.14	1 3/8"	\$10.36	1 13/16"	\$11.48
1 1/8"	8.68	1 3/8"	9.33	1 5/8"	10.55	1 7/8"	11.58
1 3/16"	8.86	1 7/16"	9.52	1 11/16"	11.02	1 15/16"	11.95
1 1/4"	8.95	1 1/2"	9.98	1 3/4"	11.20	2"	12.14

Abrasives

The Beall Tool Company

Not long ago we ran out of the 220 garnet sandpaper we generally use in the shop and decided to try, in its place, a sample of a new, patented paper that we had picked up at a recent trade show. We were amazed at its performance: never had we used sandpaper which cut so fast or lasted so long. It made sanding, never one of our favorite tasks, a positive joy; and we set out for our local “big box” store in search of more. Its price — at \$4.00 for three sheets — was more than we had ever paid for sandpaper, but we were so impressed with the quality that we bought it anyhow, resolving as we did so to add it to our catalog and make it available to you at a better price.

The manufacturer is Norton, one of two sandpaper makers left in North America, and this sandpaper, No-Fil Magnum A275⁺, is an industrial version of the product we tested. Its heat-treated aluminum oxide grains are bonded to a strong, flexible paper backing, then coated to prevent loading. The paper is undyed which allows the abrasive granules to better adhere to it and also eliminates the possibility that any color will be transferred to the work. In addition to cutting up to three times faster and lasting nearly three times longer than garden variety paper, it is also waterproof. Though you may not do much wet sanding with 80 grit, you can be assured that your paper will not curl up in the humid days of summer. Best of all, you can purchase sandpaper from us for much less than you would pay for it at the “big box.”

SUPERIOR SANDPAPER



Norton No-Fil Magnum A275 Sandpaper Sheet

(specify grit: 80, 100, 120, 150, 180, 220, 280, 320 or 400.)85
Starter Pack (eighteen sheets, two of each grit)	\$14.50



FIBRAL ABRASIVE WOOL

Is more flexible and easier on your hands than steel wool. Since it won't leave rusty spots to mar your work, you can use it wet or dry. Available in coarse, or fine grade, color-coded so that you won't have to guess what you just grabbed. Individual grades come in handy perforated corner boxes so that you can tear off exactly what you need. Triangular boxes are 12" x 10".

Single Grade Box	\$15.75
(Specify Coarse 180 grit, Medium 320 grit or Fine 800 grit.)		

Measurement

DIGITAL SCALE & READ-OUT



The digital scales mounted on our thickness planer and Performax® sander have been two of the best investments we have made in our shop, even though they were relatively expensive when we purchased them several years ago. When the units began to be manufactured in China, prices dropped, and we put one of these more economical models in our catalog. We were frustrated, however, that we could not offer an accompanying remote readout. Now, with this catalog, we are offering both an improved and better priced scale and a remote readout with an attractive price, as well. They are made by Shan, one of the top Chinese manufacturers of these units.

Of course, the scale may be used without the remote, but if you are old and stiff (like J.R.,) you will appreciate being able to mount the large number readout up where it is easy to see. It has a magnetic base which can be attached to any iron or steel machine part, and a long cord for connecting it to the scale. It is powered by two AAA batteries which also power the scale. (This new combo will also remember settings after it is turned off.) Mounting is not difficult; the instructions contain pictures with sample mounting arrangements. The scale, which is offered in either a 6" or an 8" length, is affixed to one static and one moving point on the machine, with the included brackets and screws. Only one end of the scale and the sliding part need to be attached to the machine. We guarantee that once you have installed a readout in your shop, you will wonder how you ever got along without it.

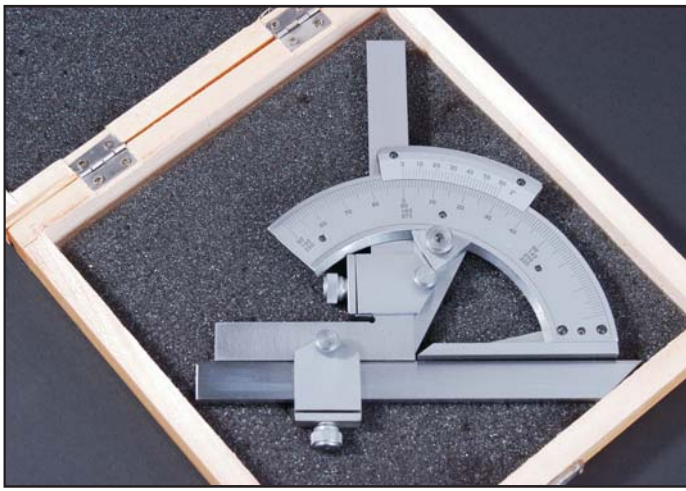
6" Digital Scale	\$69.95
8" Digital Scale	75.00
Digital Display Unit	115.75

DIGITAL CALIPERS

We have several pairs of calipers – both Vernier and digital – in our shop and would be lost without their capacity to provide fine measurements. This particularly nice pair we have added to our line, as well as to our workbench. Stainless steel, they have a large number readout which displays both inch and metric measurements. They will take both inside and outside readings and depth readings up to 6 inches. Setting them at a desired measurement, then zeroing them out, allows you to read size differences without having to add or subtract. A fitted plastic case and a battery are included. Made in China by "Shan", one of the world's top producers of digital readouts.



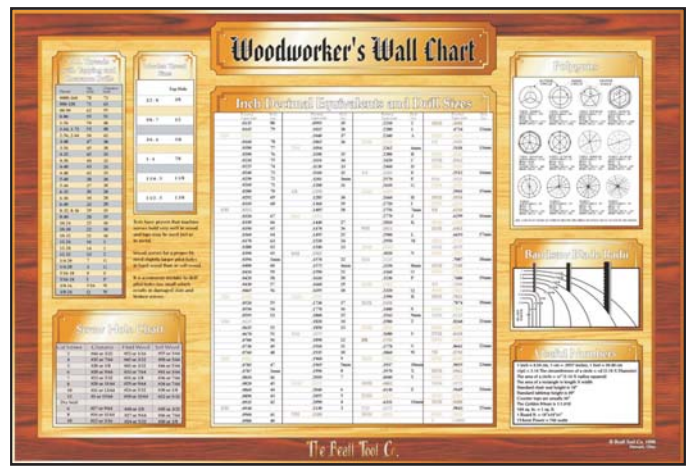
Digital Calipers	\$35.95
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VERNIER PROTRACTOR

There are a number of very good miter gauges available now which should aid you in cutting very accurate angles. If, however, you need to check an angle that you have just cut, and you are not absolutely certain that your saw's gauge is correct, this Vernier Protractor will allow you to measure the angle (obtuse or acute) to an accuracy within two minutes ($\frac{1}{30}$ of a degree.) If you are making frames of more than four sides or constructing segmented blanks for turning, this protractor will be invaluable. Made in China, it is an extremely high quality tool, well-finished and nicely made — complete with its own wooden storage box.

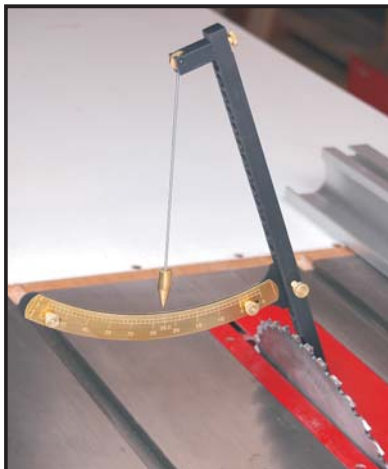
Vernier Protractor \$65.00



WOODWORKERS WALL CHART

J.R. has relied for years on a machinist's wall chart that hangs over the workbench in his shop. Since he is, after all, a wood worker, he undertook the design of a new version of the chart which would be as useful to woodworkers as the original item has been to machinists. Our new **"Woodworker's Wall Chart"** is covered with essential information and will relieve you of the trouble of remembering, looking up or (worse) guessing decimal equivalents, drill sizes, polygon angles and other obscure (but necessary) tidbits of knowledge. Furthermore, the Wall Chart is a functional shop decoration which will inform visitors that you work to very fine tolerances and are not to be trifled with where accuracy and detail are concerned.

Woodworker's Wall Chart \$9.95



The INCLINOMETER

Certain projects, like setting up your table saw to cut precise sections for segmented turnings, require more accurate readings than your saw's angle indicator can deliver. We have developed the Inclinator for this, or any other instance when only an exact angle will do. After calibrating it to your table with its precision-ground 1-2-3 block, secure it to your saw blade or jointer fence with the powerful neodymium magnets imbedded in its body; then tilt your blade until the angle you desire is indicated by the Inclinator's pointer. Its adjustable brass scales are designed to be read with either a right or a left tilt. This is a beautiful instrument — indispensable if you do precision woodworking.

Inclinator \$129.00

Shipping

Information

I

n an effort to make your shipping charges fairer, we have come up with the following system based on actual UPS charges to different areas of the country. They are, for convenience, still based on average shipping costs for merchandise under 10 pounds. If you would like your merchandise shipped at its actual, rather than estimated shipping rate, please provide us with a credit card so that we can make adjustments at shipping time. You should also contact us if you would like expedited service or if you live outside the U.S.

If you live in east of the Mississippi, your shipping is \$7.75.
If you live in west of the Mississippi, your shipping is \$8.75
For UPS 2nd Day Air anywhere in the continental U.S.,
add \$15.00.

Shipping options for Alaska, Hawaii and
Puerto Rico are UPS 2nd Day Air, or
Priority Mail. Please inquire about cost.

We have secure On-line ordering!
Be sure to check our Web Site at
www.bealltool.com

The Beall Tool Company

Some new products in this Catalog



Lathe Spindle Tap Page 9



String Buff Wheel Page 3



Digital Scale & Read-Out
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Horse Hair Buff Wheel
Page 3



1/2" Drill Chuck w/#2 MT
Page 8



Pepper Mills Page 10



1" Treen Driver Page 7



Buffer Mandrels
Extension
Page 3



Digital Calipers
Page 21



Treen Mandrel Expanders
Page 7

The Beall Tool Company

541 Swans Road N.E.

Newark, Ohio 43055-8838

The Beall Tool Co.

Monday through Friday 9 a.m. - 5 p.m.

Toll Free 1 (800) 331-4718 Fax 1 (740) 345-5880

We also have secure on-line ordering at www.bealltool.com

SALT SHAKERS & PEPPER MILLS AND HOW TO MAKE THEM

Our new illustrated instruction booklet provides a complete description of these mechanisms and details several ways they can be mounted. It contains photos and detailed drawings of designs as well as helpful tips for completing projects.

See Page 10

